

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES  
(Attorney Docket № 14180US02)**

In the Application of:

Ed H. Frank, et al.

Serial No. 10/658,725

Filed: September 9, 2003

For: METHOD AND SYSTEM FOR  
PROVIDING AN INTELLIGENT  
SWITCH FOR BANDWIDTH  
MANAGEMENT IN A HYBRID  
WIRED/WIRELESS LOCAL AREA  
NETWORK

Examiner: Simon A. Goetze

Group Art Unit: 2617

Confirmation No. 2800

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**APPEAL BRIEF**

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an appeal from an Office Action dated May 24, 2007 ("Final Office Action"), in which claims 1-25 were finally rejected. The Applicant respectfully requests that the Board of Patent Appeals and Interferences ("Board") reverses the final rejection of claims 1-25 of the present application. The Applicant notes that this Appeal Brief is timely filed within the period for reply that ends on October 26, 2007.

**REAL PARTY IN INTEREST**  
**(37 C.F.R. § 41.37(c)(1)(i))**

Broadcom Corporation, a corporation organized under the laws of the state of California, and having a place of business at 5300 California Avenue, Irvine, California 92617, has acquired the entire right, title and interest in and to the invention, the application, and any and all patents to be obtained therefor, as set forth in the Assignment recorded at Reel 014199, Frame 0975 in the PTO Assignment Search room.

**RELATED APPEALS AND INTERFERENCES**  
**(37 C.F.R. § 41.37(c)(1)(ii))**

The Appellant is unaware of any related appeals or interferences.

**STATUS OF THE CLAIMS**  
**(37 C.F.R. § 41.37(c)(1)(iii))**

Claims 1-25 were finally rejected. Pending claims 1-25 are the subject of this appeal.

The present application includes claims 1-25, which are pending in the present application. Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,978,144, issued to Choksi (hereinafter, Choksi), in view of U.S. Patent Application Publication No. 2003/0134650, issued to Sundar, et al.

(hereinafter, Sundar). See the Final Office Action at page 4. The Applicant identifies claims 1-25 as the claims that are being appealed. The text of the pending claims is provided in the Claims Appendix.

**STATUS OF AMENDMENTS**  
**(37 C.F.R. § 41.37(c)(1)(iv))**

The Applicant has not amended any claims subsequent to the final rejection of claims 1-25 mailed on May 24, 2007.

**SUMMARY OF CLAIMED SUBJECT MATTER**  
**(37 C.F.R. § 41.37(c)(1)(v))**

The invention of claim 1 is illustratively described in the Specification of the present application in, for example, "Brief Summary of the Invention" section in pages 8-10. Aspects of the invention provide a system and method for bandwidth management in a hybrid wired/wireless local area network. See the present application, page 8, lines 2-3. A method for bandwidth management in a hybrid wired/wireless local area network may include receiving from a first access point (e.g., 310-314 in FIG. 3) and/or a first switch (e.g., 306), a first messaging protocol message for establishing a communication session. See *id.* at page 8, lines 3-6. Responsive to the first messaging protocol message, determining an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network and allocating bandwidth to accommodate

the communication session. *See id.* at page 8, lines 6-9. The first access point may be notified of the allocation of bandwidth using a second messaging protocol message. *See id.* at page 8, lines 9-10.

Claims 2-8 are dependent upon claim 1.

The invention of claim 9 is illustratively described in the Specification of the present application in, for example, "Brief Summary of the Invention" section in page 9. Another embodiment of the invention may provide a machine-readable storage, having stored thereon a computer program having at least one code section for providing bandwidth management for a switch in a hybrid wired/wireless local area network, where the at least one code section is executable by a machine for causing the machine to perform the steps described above. *See id.* at page 9, lines 1-5.

Claims 10-16 are dependent upon claim 9.

The invention of claim 17 is illustratively described in the Specification of the present application in, for example, "Brief Summary of the Invention" section in page 9. Another embodiment of the invention may provide a system for bandwidth management in a hybrid wired/wireless local area network. *See id.* at page 9, lines 6-7. The system may include a receiver adapted to receive from a first access point and/or a first switch, a first messaging protocol message for establishing a communication session. *See id.* at page 9, lines 7-9. One or more controllers may be adapted to determine an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network. *See id.* at page 9, lines 9-11. At least one of the controllers may determine

the available bandwidth in response to the first messaging protocol message. *See id.* at page 9, lines 11-13. Additionally, at least one of the controllers may be adapted to allocate bandwidth to accommodate the communication session and/or notify the access point of the allocated bandwidth using a second messaging protocol message. *See id.* at page 9, lines 13-15.

Claims 18-25 are dependent upon claim 17.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**  
**(37 C.F.R. § 41.37(c)(1)(vi))**

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,978,144, issued to Choksi (hereinafter, Choksi), in view of U.S. Patent Application Publication No. 2003/0134650, issued to Sundar, et al. (hereinafter, Sundar).

**ARGUMENT**  
**(37 C.F.R. § 41.37(c)(1)(vii))**

In the Final Office Action, claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,978,144, issued to Choksi (hereinafter, Choksi), in view of U.S. Patent Application Publication No. 2003/0134650, issued to Sundar, et al. (hereinafter, Sundar). The combination of Choksi and Sundar, however, does not describe, teach or suggest every recited limitation within these claims. The burden of establishing a *prima facie* case of obviousness resides with the Patent and Trademark Office. See *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) quoting *In re Warner*, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967). The Final Office Action fails to establish a *prima facie* case of obviousness because it does not specifically point to every limitation of the rejected claims of the present application in Choksi and Sundar.

**I. The Proposed Combination of Choksi and Sundar Does Not Render Claims 1-25 Unpatentable**

The Applicant first turns to the rejection of claims 1-25 under 35 U.S.C. § 103(a) as being unpatentable over Choksi in view of Sundar.

**A. Independent Claims 1, 9, and 17**

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Choksi and Sundar does not disclose or suggest at

least the limitation of "receiving from at least one of a first access point and a first switch, at least a first messaging protocol message for establishing a communication session," as recited by the Applicant in independent claim 1.

The Final Office Action states the following:

Choksi discloses a method for providing bandwidth management in a hybrid wired/wireless local area network (*Abstract*), the method comprising:

receiving from at least one of a first access point and a first switch, at least a first messaging protocol message for establishing a communication session (*call admission request is submitted - Column 7, Lines 5-15 and 33-41*);

See the Final Office Action at page 5. Initially, the Examiner is reminded that the Applicant's claim 1 relates to a method for providing bandwidth management in a **hybrid wired/wireless local area network (LAN)**. However, the Examiner is relying for support on Choksi, which discloses a method and system for managing real-time bandwidth requests in a **wireless network** that includes receiving a request for a connection for bandwidth of a cell of a wireless network. See Choksi at Abstract. In this regard, **Choksi relates only to wireless cell networks and does not relate to a hybrid wired/wireless LAN.**

With regard to the first claim limitation stated above, the Examiner is relying on the following citations from Choksi:

Referring to FIG. 3, the method begins at state 160 in which the bandwidth request control is idle while there are no requests to be processed. In response to a bandwidth request for a connection, idle

state 160 transitions to step. At step 162, the type of the request is determined. The request may be a handoff request, a call admission request, an additional bandwidth request or any other suitable type of request for bandwidth for a wireless connection. Proceeding to step 162, a QoS policy is retrieved for the connection. The QoS policy may be retrieved from a SLA or other suitable database or node of the communications network 10.

FIG. 4 illustrates a method for bandwidth allocation control in accordance with one embodiment of the present invention. In this embodiment, as previously described in connection with FIG. 3, a single bandwidth request control is used to process call handoff, call admission and additional bandwidth requests. The bandwidth request control includes the call bandwidth and call handoff admission controls 72 and 74 and/or the functionality, thresholds and queues of the controls 72 and 74.

See Choksi at col. 7, lines 5-15 and 33-41. Figure 3 of Choksi illustrates a method for queuing a bandwidth request for allocation **in a wireless cell network**, and Figure 4 of Choksi illustrates a method for bandwidth allocation control **within the wireless cell network**. The Applicant points out that **Choksi, including the above citation of Choksi, does not disclose or suggest receiving by an access point or a switch, a messaging protocol message for establishing a communication session**, as recited in Applicant's claim 1. In fact, **Choksi does not disclose or suggest any signal processing with regard to an access point or a switch within a hybrid wired/wireless LAN**, as recited in Applicant's claim 1. Sundar is also silent as to receiving from an access point or a switch, a messaging protocol message for establishing a communication session, as recited by the Applicant in independent claim 1. Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "receiving from at least one of a first access point and a



first switch, at least a first messaging protocol message for establishing a communication session," as recited by the Applicant in independent claim 1.

Furthermore with regard to the rejection of claim 1, the Examiner concedes that Choksi fails to disclose the notification to the first access point of the communication system to commence the connection. See the Final Office Action at page 5. The Examiner then relies on Sundar and states the following:

In related prior art, Sundar et al. discloses a call connection management system for hybrid wired/wireless (WWAN and WLAN) networks which performs call setup functions such as channel assignment based upon requests from users. During the call connection setup, initiated by, for example, a handoff scenario, the service BSC informs the desired BSC of the desire to handoff, and once the operation is the complete, acknowledgements are returned to the initiating parties (*Figure 12 - Page 6, Paragraphs 0074-0075*).

See *id.* The Applicant points out that even though Sundar discloses that the service BSC informs the desired BSC of the desire to handoff, **Sundar fails to disclose or suggest that an access point is notified of allocated bandwidth using a messaging protocol message**, as recited by the Applicant in claim 1. The Applicant is confused as to why the Examiner is relying on Sundar as **Sundar clearly does not disclose or suggest any access point notification. Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "notifying said first access point of said allocated bandwidth using at least a second messaging protocol message," as recited by the Applicant in independent claim 1.** Independent claims 9 and 17 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that

independent claims 9 and 17 are also allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

Accordingly, the proposed combination of Choksi and Sundar does not render independent claims 1, 9, and 17 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable.

#### **B. Examiner's "Response to Arguments" Section**

The Final Office Action states the following in the "Response to Arguments" section:

Choksi is discussing a method and a system for managing real-time bandwidth in a wireless network. Choksi discusses the bandwidth allocation controller receiving a call admission request from the network. Therefore disclosing the limitation of "receiving from at least one of a first access point and a first switch, at least a first messaging protocol message for establishing a communication session." Choksi further discusses processing the call admission request by verifying if there is available bandwidth to create the communication, and that the radio link can be an 802.11 based WLAN link. Therefore discloses "responsive to said first messaging protocol message, determining an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network."

See the Final Office Action at page 3. The Applicant points out that the "Response to Arguments" section is simply summarizing the arguments previously mentioned in the non-final Office Action mailed on December 18, 2006. In this regard, the Final Office Action has not responded to Applicant's specific arguments stated in pages 13-19 of the March 12, 2007 response.

**The Applicant points out that Choksi relates only to wireless cell networks and does not relate to hybrid wired/wireless local area network (LAN), as recited in Applicant's claim 1, for example. Furthermore, Choksi does not disclose or suggest receiving of a protocol message by an access point or a switch within the hybrid wired/wireless LAN. In fact, Choksi does not disclose any signal processing with regard to an access point or a switch.**

The Final Office Action further states the following:

It is understood in the art, that once a connection is allowed, the access point would be notified, but Choksi fails to specifically disclose this limitation.

See the Final Office Action at page 3. Initially, regardless of whether this statement is true or not, the Applicant notes that it appears that at least claim 1 is being rejected based on inherency. That is, the Final Office Action's statement above implies that once a connection is allowed, it is inherent that the access point would be notified.

The Applicant submits that a rejection based on inherency must include a statement of the rationale or evidence tending to show inherency. See Manual of Patent Examining Procedure at § 2112. "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." See *id. citing In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be**

**established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

*In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Applicant respectfully submits that neither Choksi itself nor the Final Office Action "make[s] clear that the missing descriptive matter," said to be inherent "is necessarily present in" Choksi.

A rejection based on inherency must be based on factual or technical reasoning:

In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.

*Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

The Applicant respectfully submits that the Final Office Action does not contain a basis in fact and/or technical reasoning to support the rejection based on inherency. Instead, as recited above, at least claim 1 of the present application stands rejected based on a conclusory statement of inherency, rather than upon a "basis in fact and/or technical reasoning." Accordingly, the Applicant respectfully submits that, absent a "basis in fact and/or technical reasoning" for the rejection of record, that rejection should be reconsidered and withdrawn.

### **C. Rejection of Dependent Claim 2**

Claim 2 depends on independent claim 1. Therefore, the Applicant submits that claim 2 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "said receiving comprises receiving said at least a first messaging protocol message by at least one of a second switch and a second access point," as recited by the Applicant in claim 2.

With regard to claim 2, the Final Office Action states the following at page 8:

Consider claim 2, as applied to claim 1 above, Choksi as modified by Sundar et al. further discloses receiving said at least a first messaging protocol message by at least one of a second switch and a second access point (*Sundar et al. - the serving WLANMSC informs the desired WWANBSC of the handoff requests - Figure 12, Steps 1204-1210 - Page 6, Paragraph 0074*).

As already stated above with regard to Section I-A, Choksi does not disclose or suggest receiving by an access point or a switch, a messaging protocol message for establishing a communication session, as recited in Applicant's claim 2. In fact, Choksi does not disclose or suggest any signal processing with regard to an access point or a switch within a hybrid wired/wireless LAN, as recited in Applicant's claim 2. Sundar is also silent as to receiving from an access point or a switch, a messaging protocol message for establishing a communication session, as recited by the Applicant in claim 2. In addition, the above Sundar, at the above citation, discloses that the service BSC informs the desired BSC of the desire to handoff. However, Sundar fails to disclose or

suggest receiving of a messaging protocol message by a second switch and/or a second access point, as recited by the Applicant in claim 2.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "said receiving comprises receiving said at least a first messaging protocol message by at least one of a second switch and a second access point," as recited by the Applicant in claim 2. Accordingly, the Applicant submits that claim 2 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 2.

#### **D. Rejection of Dependent Claim 3**

Claim 3 depends on independent claim 1. Therefore, the Applicant submits that claim 3 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "requesting bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol message," as recited by the Applicant in claim 3.

With regard to claim 3, the Final Office Action states the following at pages 8-9:

Consider claim 3, as applied to claim 2 above, Choksi as modified by Sundar et al. further discloses requesting bandwidth usage information from at least one of said first access point and said first switch using said

at least a first messaging protocol (*Choksi - call admission request are single bandwidth requests - Column 7, Lines 42-48*).

The Examiner relies on Choksi, col. 7, lines 42-48, which discloses that the bandwidth usage for the cell may be updated by the base station. Choksi, including col. 7, lines 42-48, does not disclose or suggest any requesting of bandwidth usage information with regard to an access point or a switch within a hybrid wired/wireless LAN, as recited in Applicant's claim 3. Choksi is also silent as to requesting the bandwidth usage information from an access point or a switch using a messaging protocol message, as recited by the Applicant in claim 3. Accordingly, the Applicant submits that claim 3 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 3.

#### **E. Rejection of Dependent Claim 4**

Claim 4 depends on independent claim 1. Therefore, the Applicant submits that claim 4 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session," as recited by the Applicant in claim 4.

With regard to claim 4, the Final Office Action states the following at page 9:

Consider claim 4, as applied to claim 3 above, Choksi as modified by Sundar et al. further discloses de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session (*Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLANMSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228 - Page 6, Paragraph 0074*).

The Examiner relies on Figure 12 of Sundar, which illustrates a hard handoff between a WLAN and WWAN, with regard to a mobile station engaged in a telephone call. In this regard, Sundar does not disclose any processing with regard to bandwidth allocation and de-allocation for an access point and/or a switch in a hybrid network. In addition, step 1228 in Figure 12 of Sundar discloses that WLAN only sends a message that resources may be cleared, while the communication session is still established. However, Sundar, including the steps in Figure 12, does not disclose that de-allocating of allocated bandwidth will occur using a messaging protocol message and subsequent to termination of the established communication session, as recited by the Applicant in claim 4. Choksi does not overcome this deficiency of Sundar.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session," as recited by the Applicant in claim 4. Accordingly, the Applicant submits that claim 4 is allowable over the references cited in the Final Office Action at least for the above reasons.



The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 4.

**F. Rejection of Dependent Claim 5**

Claim 5 depends on independent claim 1. Therefore, the Applicant submits that claim 5 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point," as recited by the Applicant in claim 5.

With regard to claim 5, the Final Office Action states the following at page 9:

Consider claim 5, as applied to claim 4 above, Choksi as modified by Sundar et al. further discloses sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point (*Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLANMSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228-Page 6, Paragraph 0074*).

The Examiner relies on Figure 12 of Sundar, which illustrates a hard handoff between a WLAN and WWAN, with regard to a mobile station engaged in a telephone call. In this regard, **Sundar does not disclose any processing with regard to bandwidth allocation and de-allocation for an access point and/or a switch in a hybrid network using a messaging protocol message.** In addition, step 1228 in

Figure 12 of Sundar discloses that WLAN only sends a message that resources may be cleared, while the communication session is still established. However, Sundar, including the steps in Figure 12, does not disclose that de-allocating of allocated bandwidth will occur using a messaging protocol message or sending the messaging protocol message from one access point/switch to another. Choksi does not overcome the deficiencies of Sundar.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point," as recited by the Applicant in claim 5. Accordingly, the Applicant submits that claim 4 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 5.

#### **G. Rejection of Dependent Claim 6**

Claim 6 depends on independent claim 1. Therefore, the Applicant submits that claim 6 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "receiving bandwidth information from at least one of a quality of service management process, a load

balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message," as recited by the Applicant in claim 6.

With regard to claim 6, the Final Office Action states the following at page 9:

Consider claim 6, as applied to claim 5 above, Choksi as modified by Sundar et al. further discloses receiving bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message (*Choksi – QoS policy is retrieved during the bandwidth allocation request - Column 6, Lines 60-67 and Column 7, Lines 5-15*).

The Applicant points out that Choksi, at col. 6, lines 60-67, discloses that QoS mechanism may be provided to the bandwidth allocation controller. Choksi, at col. 7, lines 5-15 discloses that a QoS policy for a connection may be retrieved from a database or a communication network node. Choksi, including column 6, lines 60-67 and column 7, lines 5-15, does not disclose or suggest **that bandwidth information is received** from at least one of a quality of service management process, a load balancing management process, a session control process, and/or a network management process **using a messaging protocol message**, as recited by the Applicant in claim 6. Sundar does not overcome this deficiency of Choksi. Accordingly, the Applicant submits that claim 6 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 6.

#### **H. Rejection of Dependent Claim 7**

Claim 7 depends on independent claim 1. Therefore, the Applicant submits that claim 7 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "requesting said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using a fifth messaging protocol message," as recited by the Applicant in claim 7.

With regard to claim 7, the Final Office Action states the following at pages 9-10:

Consider claim 7, as applied to claim 6 above, Choksi as modified by Sundar et al. further discloses requesting said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using a fifth messaging protocol message (*Choksi – QoS policy is retrieved during the bandwidth allocation request - Column 6, Lines 60-67 and Column 7, Lines 5-15*).

The Applicant points out that Choksi, at col. 6, lines 60-67, discloses that QoS mechanism may be provided to the bandwidth allocation controller. Choksi, at col. 7, lines 5-15 discloses that a QoS policy for a connection may be retrieved from a database or a communication network node. Choksi, including column 6, lines 60-67 and column 7, lines 5-15, does not disclose or suggest **that** bandwidth information is requested from the quality of service management process, the load balancing

management process, the session control process, and/or the network management process using a fifth messaging protocol message, as recited by the Applicant in claim 7. Sundar does not overcome this deficiency of Choksi. Accordingly, the Applicant submits that claim 7 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 7.

#### **I. Rejection of Dependent Claim 8**

Claim 8 depends on independent claim 1. Therefore, the Applicant submits that claim 8 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "said first, second, third, fourth and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message," as recited by the Applicant in claim 8.

With regard to claim 8, the Final Office Action states the following at page 10:

Consider claim 8, as applied to claim 7 above, Choksi as modified by Sundar et al. further discloses that said first, second, third, fourth, and fifth messaging protocol messages each comprise at least one message

selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message, and a device discovery message (*Choksi - the messages request the status of the access points, hence gaining their status and configuration - Column 7, Lines 42-47; Sundar et al. - device discovery is used to determine available networks - Page 4, Paragraphs 0055-0057; Sundar et al. - BSCs determine statuses of access points to perform call connections - Page 6, Paragraph 0074*).

As already stated above with regard to Section I-A, neither Choksi nor Sundar disclose or suggest any processing with regard to a messaging protocol message associated with an access point or a switch, as recited by the Applicant in claim 8. Accordingly, the Applicant submits that claim 8 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 8.

#### **J. Rejection of Dependent Claim 10**

Claim 10 depends on independent claim 9. Therefore, the Applicant submits that claim 9 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "said receiving code comprises code for receiving said at least a first messaging protocol message by at least one of a second switch and a second access point," as recited by the Applicant in claim 10.

With regard to claim 10, the Final Office Action states the following at page 10:

Consider claim 10, as applied to claim 9 above, Choksi as modified by Sundar et al. further discloses receiving said at least a first messaging protocol message by at least one of a second switch and a second access point (*Sundar et al. - the serving WLAN MSC informs the desired WWAN BSC of the handoff requests - Figure 12, Steps 1204,,,1210 - Page 6, Paragraph 0074*).

As already stated above with regard to Section I-A, Choksi does not disclose or suggest receiving by an access point or a switch, a messaging protocol message for establishing a communication session, as recited in Applicant's claim 10. In fact, Choksi does not disclose or suggest any signal processing with regard to an access point or a switch within a hybrid wired/wireless LAN, as recited in Applicant's claim 10. Sundar is also silent as to receiving from an access point or a switch, a messaging protocol message for establishing a communication session, as recited by the Applicant in claim 10. In addition, the above Sundar, at the above citation, discloses that the service BSC informs the desired BSC of the desire to handoff. However, Sundar fails to disclose or suggest receiving of a messaging protocol message by a second switch and/or a second access point, as recited by the Applicant in claim 10.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "said receiving comprises receiving said at least a first messaging protocol message by at least one of a second switch and a second access point," as recited by the Applicant in claim 10. Accordingly, the Applicant submits that claim 10 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 10.

**K. Rejection of Dependent Claim 11**

Claim 11 depends on independent claim 9. Therefore, the Applicant submits that claim 11 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "requesting bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol message," as recited by the Applicant in claim 11.

With regard to claim 11, the Final Office Action states the following at page 10:

Consider claim 11, as applied to claim 10 above, Choksi as modified by Sundar et al. further discloses requesting bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol (*Choksi - call admission request are single bandwidth requests - Column 7, Lines 42-48*).

The Examiner relies on Choksi, col. 7, lines 42-48, which discloses that the bandwidth usage for the cell may be updated by the base station. Choksi, including col. 7, lines 42-48, does not disclose or suggest any requesting of bandwidth usage information with regard to an access point or a switch within a hybrid wired/wireless LAN, as recited in Applicant's claim 11. Choksi is also silent as to requesting the bandwidth usage information from an access point or a switch using a messaging



protocol message, as recited by the Applicant in claim 11. Accordingly, the Applicant submits that claim 11 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 11.

#### **L. Rejection of Dependent Claim 12**

Claim 12 depends on independent claim 9. Therefore, the Applicant submits that claim 12 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session," as recited by the Applicant in claim 12.

With regard to claim 12, the Final Office Action states the following at page 11:

Consider claim 12, as applied to claim 11 above, Choksi as modified by Sundar et al. further discloses de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session (*Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLAN MSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228 - Page 6, Paragraph 0074*).

The Examiner relies on Figure 12 of Sundar, which illustrates a hard handoff between a WLAN and WWAN, with regard to a mobile station engaged in a telephone

call. In this regard, Sundar does not disclose any processing with regard to bandwidth allocation and de-allocation for an access point and/or a switch in a hybrid network. In addition, step 1228 in Figure 12 of Sundar discloses that WLAN only sends a message that resources may be cleared, while the communication session is still established. However, Sundar, including the steps in Figure 12, does not disclose that de-allocating of allocated bandwidth will occur using a messaging protocol message and subsequent to termination of the established communication session, as recited by the Applicant in claim 12. Choksi does not overcome this deficiency of Sundar.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session," as recited by the Applicant in claim 12. Accordingly, the Applicant submits that claim 12 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 12.

#### **M. Rejection of Dependent Claim 13**

Claim 13 depends on independent claim 9. Therefore, the Applicant submits that claim 13 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-

Sundar does not disclose or suggest at least the limitation of "sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point," as recited by the Applicant in claim 13.

With regard to claim 13, the Final Office Action states the following at page 11:

Consider claim 13, as applied to claim 12 above, Choksi as modified by Sundar et al. further discloses sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point (*Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLAN MSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228-Page 6, Paragraph 0074*).

The Examiner relies on Figure 12 of Sundar, which illustrates a hard handoff between a WLAN and WWAN, with regard to a mobile station engaged in a telephone call. In this regard, **Sundar does not disclose any processing with regard to bandwidth allocation and de-allocation for an access point and/or a switch in a hybrid network using a messaging protocol message.** In addition, step 1228 in Figure 12 of Sundar discloses that WLAN only sends a message that resources may be cleared, while the communication session is still established. However, Sundar, including the steps in Figure 12, does not disclose that de-allocating of allocated bandwidth will occur using a messaging protocol message or sending the messaging protocol message from one access point/switch to another. Choksi does not overcome the deficiencies of Sundar.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point," as recited by the Applicant in claim 13. Accordingly, the Applicant submits that claim 13 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 13.

#### **N. Rejection of Dependent Claim 14**

Claim 14 depends on independent claim 9. Therefore, the Applicant submits that claim 14 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "receiving bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message," as recited by the Applicant in claim 14.

With regard to claim 14, the Final Office Action states the following at page 11:

Consider claim 14, as applied to claim 13 above, Choksi as modified by Sundar et al. further discloses receiving bandwidth information from at least one of a quality of service management process, a load balancing

management process, a session control process, and a network management process using at least a fourth messaging Prot0901 message (*Choksi – QoS policy is retrieved during the bandwidth allocation request- Column 6, Lines 60-67 and Column 7, Lines 5-15*).

The Applicant points out that Choksi, at col. 6, lines 60-67, discloses that QoS mechanism may be provided to the bandwidth allocation controller. Choksi, at col. 7, lines 5-15 discloses that a QoS policy for a connection may be retrieved from a database or a communication network node. Choksi, including column 6, lines 60-67 and column 7, lines 5-15, does not disclose or suggest **that bandwidth information is received** from at least one of a quality of service management process, a load balancing management process, a session control process, and/or a network management process **using a messaging protocol message**, as recited by the Applicant in claim 14. Sundar does not overcome this deficiency of Choksi. Accordingly, the Applicant submits that claim 14 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 14.

#### **O. Rejection of Dependent Claim 15**

Claim 15 depends on independent claim 9. Therefore, the Applicant submits that claim 15 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "requesting said bandwidth

information from said quality of service management process, said load balancing management process, said session control process, and said network management process using at least a fifth messaging protocol message," as recited by the Applicant in claim 15.

With regard to claim 15, the Final Office Action states the following at pages 11-12:

Consider claim 15, as applied to claim 14 above, Choksi as modified by Sundar et al. further discloses requesting said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using a fifth messaging protocol message (*Choksi - QoS policy is retrieved during the bandwidth allocation request- Column 6, Lines 60-67 and Column 7, Lines 5-15*).

The Applicant points out that Choksi, at col. 6, lines 60-67, discloses that QoS mechanism may be provided to the bandwidth allocation controller. Choksi, at col. 7, lines 5-15 discloses that a QoS policy for a connection may be retrieved from a database or a communication network node. Choksi, including column 6, lines 60-67 and column 7, lines 5-15, does not disclose or suggest **that** bandwidth information is requested from the quality of service management process, the load balancing management process, the session control process, and/or the network management process using a fifth messaging protocol message, as recited by the Applicant in claim 15. Sundar does not overcome this deficiency of Choksi. Accordingly, the Applicant submits that claim 15 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 15.

**P. Rejection of Dependent Claim 16**

Claim 16 depends on independent claim 9. Therefore, the Applicant submits that claim 16 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "said first, second, third, fourth and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message," as recited by the Applicant in claim 16.

With regard to claim 16, the Final Office Action states the following at page 12:

Consider claim 16, as applied to claim 15 above, Choksi as modified by Sundar et al. further discloses that said first, second, third, fourth, and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message, and a device discovery message (*Choksi - the messages request the status of the access points, hence gaining their status and configuration - Column 7, Lines 42-47; Sundar et al. - device discovery is used to determine available networks - Page 4, Paragraphs 0055-0057; Sundar et al. - BSCs determine statuses of access points to perform call connections - Page 6, Paragraph 0074*).

As already stated above with regard to Section I-A, neither Choksi nor Sundar disclose or suggest any processing with regard to a messaging protocol message associated with an access point or a switch, as recited by the Applicant in claim 16. Accordingly, the Applicant submits that claim 16 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 16.

**Q. Rejection of Dependent Claim 18**

Claim 18 depends on independent claim 17. Therefore, the Applicant submits that claim 18 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "said receiving code comprises code for receiving said at least a first messaging protocol message by at least one of a second switch and a second access point," as recited by the Applicant in claim 18.

With regard to claim 18, the Final Office Action states the following at page 12:

Consider claim 18, as applied to claim 17 above, Choksi as modified by Sundar et al. further discloses that the receiver is further adapted to receive said at least a first messaging protocol message by at least one of a second switch and a second access point (*Sundar et al. - the serving WLAN MSC informs the desired WWANBSC of the handoff requests - Figure 12, Steps 1204-1210-Page 6, Paragraph 0074*).



As already stated above with regard to Section I-A, Choksi does not disclose or suggest receiving by an access point or a switch, a messaging protocol message for establishing a communication session, as recited in Applicant's claim 18. In fact, Choksi does not disclose or suggest any signal processing with regard to an access point or a switch within a hybrid wired/wireless LAN, as recited in Applicant's claim 18. Sundar is also silent as to receiving from an access point or a switch, a messaging protocol message for establishing a communication session, as recited by the Applicant in claim 18. In addition, the above Sundar, at the above citation, discloses that the service BSC informs the desired BSC of the desire to handoff. However, Sundar fails to disclose or suggest receiving of a messaging protocol message by a second switch and/or a second access point, as recited by the Applicant in claim 18.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "said receiving comprises receiving said at least a first messaging protocol message by at least one of a second switch and a second access point," as recited by the Applicant in claim 18. Accordingly, the Applicant submits that claim 2 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 18.

**R. Rejection of Dependent Claim 19**

Claim 19 depends on independent claim 17. Therefore, the Applicant submits that claim 19 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "request bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol message," as recited by the Applicant in claim 19.

With regard to claim 19, the Final Office Action states the following at page 12:

Consider claim 19, as applied to claim 18 above, Choksi as modified by Sundar et al. further discloses that the at least one controller is adapted to request bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol (*Choksi - call admission request are single bandwidth requests-Column 7, Lines 42-48*).

The Examiner relies on Choksi, col. 7, lines 42-48, which discloses that the bandwidth usage for the cell may be updated by the base station. Choksi, including col. 7, lines 42-48, does not disclose or suggest any requesting of bandwidth usage information with regard to an access point or a switch within a hybrid wired/wireless LAN, as recited in Applicant's claim 19. Choksi is also silent as to requesting the bandwidth usage information from an access point or a switch using a messaging protocol message, as recited by the Applicant in claim 19. Accordingly, the Applicant submits that claim 19 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 19.

#### **S. Rejection of Dependent Claim 20**

Claim 20 depends on independent claim 17. Therefore, the Applicant submits that claim 20 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "de-allocate said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session," as recited by the Applicant in claim 20.

With regard to claim 20, the Final Office Action states the following at page 13:

Consider claim 20, as applied to claim 19 above, Choksi as modified by Sundar et al. further discloses that the at least one controller is adapted to de-allocate said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session (*Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLAN MSC that it may clear the resources previously allocated for the mobile -Figure 12, steps 1226-1228-Page 6, Paragraph 0074*).

The Examiner relies on Figure 12 of Sundar, which illustrates a hard handoff between a WLAN and WWAN, with regard to a mobile station engaged in a telephone call. In this regard, Sundar does not disclose any processing with regard to bandwidth allocation and de-allocation for an access point and/or a switch in a hybrid network. In addition, step 1228 in Figure 12 of Sundar discloses that WLAN only sends a message

that resources may be cleared, while the communication session is still established. However, Sundar, including the steps in Figure 12, does not disclose that de-allocating of allocated bandwidth will occur using a messaging protocol message and subsequent to termination of the established communication session, as recited by the Applicant in claim 20. Choksi does not overcome this deficiency of Sundar.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "de-allocate said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session," as recited by the Applicant in claim 20. Accordingly, the Applicant submits that claim 20 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 20.

#### **T. Rejection of Dependent Claim 21**

Claim 21 depends on independent claim 17. Therefore, the Applicant submits that claim 21 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "send said at least a third messaging protocol message from at least one of said second switch and said

second access point to at least one of said first switch and said first access point," as recited by the Applicant in claim 21.

With regard to claim 21, the Final Office Action states the following at page 13:

Consider claim 21, as applied to claim 20 above, Choksi as modified by Sundar et al. further discloses that the at least one controller is adapted to send said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point (*Sundar et al. - once the mobile has handed off to the WWAN, the WWAN notifies the WLAN MSC that it may clear the resources previously allocated for the mobile - Figure 12, steps 1226-1228 - Page 6, Paragraph 0074*).

The Examiner relies on Figure 12 of Sundar, which illustrates a hard handoff between a WLAN and WWAN, with regard to a mobile station engaged in a telephone call. In this regard, **Sundar does not disclose any processing with regard to bandwidth allocation and de-allocation for an access point and/or a switch in a hybrid network using a messaging protocol message.** In addition, step 1228 in Figure 12 of Sundar discloses that WLAN only sends a message that resources may be cleared, while the communication session is still established. However, Sundar, including the steps in Figure 12, does not disclose that de-allocating of allocated bandwidth will occur using a messaging protocol message or sending the messaging protocol message from one access point/switch to another. Choksi does not overcome the deficiencies of Sundar.

Therefore, the proposed combination of Choksi and Sundar does not disclose or suggest at least the limitation of "send said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of

said first switch and said first access point,” as recited by the Applicant in claim 21. Accordingly, the Applicant submits that claim 21 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 21.

#### **U. Rejection of Dependent Claim 22**

Claim 22 depends on independent claim 17. Therefore, the Applicant submits that claim 22 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of “receive bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message,” as recited by the Applicant in claim 22.

With regard to claim 22, the Final Office Action states the following at page 13:

Consider claim 22, as applied to claim 21 above, Choksi as modified by Sundar et al. further discloses that the receiver is adapted to receive bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message (*Choksi – QoS policy is retrieved during the bandwidth allocation request - Column 6, Lines 60-67 and Column 7, Lines 5-15*).

The Applicant points out that Choksi, at col. 6, lines 60-67, discloses that QoS mechanism may be provided to the bandwidth allocation controller. Choksi, at col. 7, lines 5-15 discloses that a QoS policy for a connection may be retrieved from a database or a communication network node. Choksi, including column 6, lines 60-67 and column 7, lines 5-15, does not disclose or suggest **that bandwidth information is received** from at least one of a quality of service management process, a load balancing management process, a session control process, and/or a network management process **using a messaging protocol message**, as recited by the Applicant in claim 22. Sundar does not overcome this deficiency of Choksi. Accordingly, the Applicant submits that claim 22 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 22.

#### **V. Rejection of Dependent Claim 23**

Claim 23 depends on independent claim 17. Therefore, the Applicant submits that claim 23 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "request said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network

management process using at least a fifth messaging protocol message,” as recited by the Applicant in claim 23.

With regard to claim 23, the Final Office Action states the following at pages 13-14:

Consider claim.23, as applied to claim 22 above, Choksi as modified by Sundar et al. further discloses that at least one controller is adapted to request said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using a fifth messaging protocol message (*Choksi – QoS policy is retrieved during the bandwidth allocation request- Column 6, Lines 60-67 and Column 7, Lines 5-15*).

The Applicant points out that Choksi, at col. 6, lines 60-67, discloses that QoS mechanism may be provided to the bandwidth allocation controller. Choksi, at col. 7, lines 5-15 discloses that a QoS policy for a connection may be retrieved from a database or a communication network node. Choksi, including column 6, lines 60-67 and column 7, lines 5-15, does not disclose or suggest **that** bandwidth information is requested from the quality of service management process, the load balancing management process, the session control process, and/or the network management process using a fifth messaging protocol message, as recited by the Applicant in claim 23. Sundar does not overcome this deficiency of Choksi. Accordingly, the Applicant submits that claim 23 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 23.



#### **W. Rejection of Dependent Claim 24**

Claim 24 depends on independent claim 17. Therefore, the Applicant submits that claim 24 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1. The Applicant also submits that Choksi-Sundar does not disclose or suggest at least the limitation of "said first, second, third, fourth and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message," as recited by the Applicant in claim 24.

With regard to claim 24, the Final Office Action states the following at page 14:

Consider claim 24, as applied to claim 23 above, Choksi as modified by Sundar et al. further discloses that said first, second, third, fourth, and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message, and a device discovery message (*Choksi - the messages request the status of the access points, hence gaining their status and configuration - Column 7, Lines 42-47; Sundar et al. - device discovery is used to determine available networks - Page 4, Paragraphs 0055-0057; Sundar et al. - BSCs determine statuses of access points to perform call connections-Page 6, Paragraph 0074*).

As already stated above with regard to Section I-A, neither Choksi nor Sundar disclose or suggest any processing with regard to a messaging protocol message associated with an access point or a switch, as recited by the Applicant in claim 24.

Accordingly, the Applicant submits that claim 24 is allowable over the references cited in the Final Office Action at least for the above reasons.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 24.

**X. Rejection of Dependent Claim 25**

Claim 25 depends on independent claim 17. Therefore, the Applicant submits that claim 25 is allowable over the references cited in the Final Office Action at least for the reasons stated above with regard to claim 1.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claim 25.

### CONCLUSION

For at least the foregoing reasons, the Applicant submits that claims 1-25 are in condition for allowance. Reversal of the Examiner's rejection and issuance of a patent on the application are therefore requested.

The Commissioner is hereby authorized to charge \$510 (to cover the Brief on Appeal Fee) and any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

Date: 26-OCT-2007

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(OIB)

**CLAIMS APPENDIX**  
**(37 C.F.R. § 41.37(c)(1)(viii))**

1. A method for providing bandwidth management in a hybrid wired/wireless local area network, the method comprising:

receiving from at least one of a first access point and a first switch, at least a first messaging protocol message for establishing a communication session;

responsive to said first messaging protocol message, determining an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network;

allocating bandwidth to accommodate said communication session; and

notifying said first access point of said allocated bandwidth using at least a second messaging protocol message.

2. The method according to claim 1, wherein said receiving comprises receiving said at least a first messaging protocol message by at least one of a second switch and a second access point.

3. The method according to claim 2, comprising requesting bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol message.

4. The method according to claim 3, comprising de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session.

5. The method according to claim 4, comprising sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point.

6. The method according to claim 5, comprising receiving bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message.

7. The method according to claim 6, comprising requesting said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using a fifth messaging protocol message.

8. The method according to claim 7, wherein said first, second, third, fourth and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

9. A machine-readable storage, having stored thereon a computer program having at least one code section for providing bandwidth management in a hybrid wired/wireless local area network, the at least one code section executable by a machine for causing the machine to perform the steps comprising:

receiving from at least one of a first access point and a first switch, at least a first messaging protocol message for establishing a communication session;

responsive to said first messaging protocol message, determining an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network;

allocating bandwidth to accommodate said communication session; and

notifying said first access point of said allocated bandwidth using at least a second messaging protocol message.

10. The machine-readable storage according to claim 9, wherein said receiving code comprises code for receiving said at least a first messaging protocol message by at least one of a second switch and a second access point.

11. The machine-readable storage according to claim 10, comprising code for requesting bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol message.

12. The machine-readable storage according to claim 11, comprising code for de-allocating said allocated bandwidth using at least a third messaging protocol message subsequent to termination of said established communication session.

13. The machine-readable storage according to claim 12, comprising code for sending said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point.

14. The machine-readable storage according to claim 13, comprising code for receiving bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message.

15. The machine-readable storage according to claim 14, comprising code for requesting said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using at least a fifth messaging protocol message.

16. The machine-readable storage according to claim 15, wherein said first, second, third, fourth and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

17. A system for providing bandwidth management in a hybrid wired/wireless local area network, the system comprising:

- a receiver adapted to receive from at least one of a first access point and a first switch, at least a first messaging protocol message for establishing a communication session;

- at least one controller adapted to determine an available communication bandwidth for at least a portion of the hybrid wired/wireless local area network, responsive to said first messaging protocol message;

- said at least one controller adapted to allocate bandwidth to accommodate said communication session; and

- said at least one controller adapted to notify said first access point of said allocated bandwidth using at least a second messaging protocol message.

18. The system according to claim 17, wherein said receiver is adapted to receive said at least a first messaging protocol message by at least one of a second switch and a second access point.

19. The system according to claim 18, wherein said at least one controller is adapted to request bandwidth usage information from at least one of said first access point and said first switch using said at least a first messaging protocol message.

20. The system according to claim 19, wherein said at least one controller is adapted to de-allocate said allocated bandwidth using at least a third messaging

protocol message subsequent to termination of said established communication session.

21. The system according to claim 20, wherein said at least one controller is adapted to send said at least a third messaging protocol message from at least one of said second switch and said second access point to at least one of said first switch and said first access point.

22. The system according to claim 21, wherein said receiver is adapted to receive bandwidth information from at least one of a quality of service management process, a load balancing management process, a session control process, and a network management process using at least a fourth messaging protocol message.

23. The system according to claim 22, wherein said at least one controller is adapted to request said bandwidth information from said quality of service management process, said load balancing management process, said session control process, and said network management process using at least a fifth messaging protocol message.

24. The system according to claim 23, wherein said first, second, third, fourth and fifth messaging protocol messages each comprise at least one message selected from the group consisting of an access point status message, access point configuration message, a switch status message, a switch configuration message, a client status message and a device discovery message.

25. The system according to claim 23, wherein said at least one controller is a bandwidth management controller, a quality of service controller, a load balancing controller, a session controller and a network management controller.



**EVIDENCE APPENDIX**  
**(37 C.F.R. § 41.37(c)(1)(ix))**

- (1) United States Patent № 6,978,144 ("Choksi"), entered into record by the Examiner in the December 18, 2006 Office Action.
  
- (2) United States Patent Publication № 2003/0134650 ("Sundar"), entered into record by the Examiner in the December 18, 2006 Office Action.

**RELATED PROCEEDINGS APPENDIX**  
**(37 C.F.R. § 41.37(c)(1)(x))**

The Appellant is unaware of any related appeals or interferences.